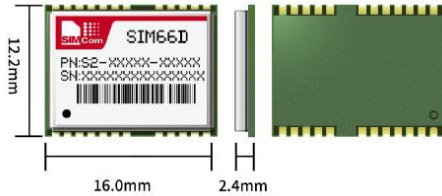


SIM66D-R

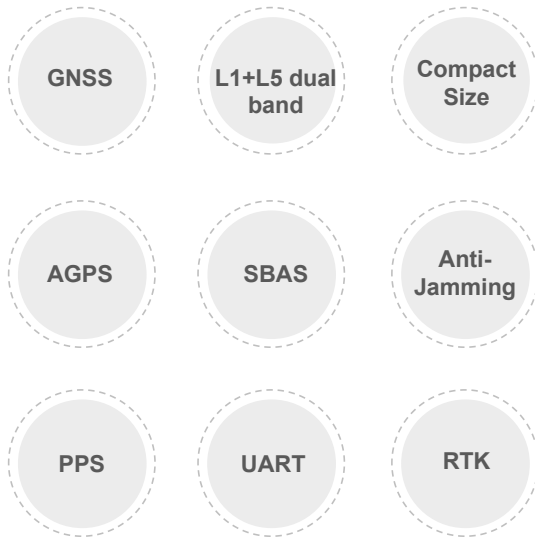
SIMCom GNSS Module



Product Description

SIM66D-R is a high performance and reliable GNSS module. It is a standalone L1 +L5 dual-band GNSS module in a LCC, which allows customer to achieve industry's high level sensitivity, accuracy, and Time-to-First-Fix (TTFF) with lower power consumption.

SIM66D-R provides simultaneous GPS, GLONASS, BeiDou, Galileo QZSS open service L1 reception capability and GPS, BeiDou, Galileo, QZSS and NAVIC open service L5 reception capability. SIM66D-R can acquire and track any mix of multiple satellite signals. SIM66D-R achieves the highest performance and fully meets the industrial standard.



Key Benefits

- ◆ L1 and L5 dual-band GNSS receiver
- ◆ Support AGNSS
- ◆ Low-noise amplifier has been integrated
- ◆ Support RTK
- ◆ Low-power consumption

Mechanical data

Dimensions	16*12.2*2.4mm
Weight	1g

Features

Support	L1: BeiDou/GPS/GLONASS/Galileo/QZSS L5: BeiDou/GPS/Galileo/QZSS/NAVIC
Support AGNSS	
Support SBAS	
Support PPS	
Low-noise amplifier has been integrated	
Support RTK	
Indoor and outdoor multi-path detection and compensation	

Interfaces

Serial interfaces	UART
	I2C
Digital I/O	Pulse-per-second (PPS)
	EINT0 input
Protocols	NMEA

Certifications(plan)

CE/UKCA
RoHS/REACH

Note

1. Demonstrated in lab
2. All SV @ -130 dBm
3. 50% 24 hr static, -130dBm
4. 50% @ 30m/s
5. When at -40°C~ -30°C, the sensitivity will be somewhat worse
6. @3.3V with a passive antenna
7. *: optional

Performance data

Receiver type	L1: 75SVs L5: 60SVs
Max. update rate	1Hz
Sensitivity ¹	
Tracking	-163dBm
Reacquisition	-158dBm
Cold starts	-149dBm
Time-To-First Fix ²	
Cold starts	24s
Warm start	23s
Hot starts	<1s
EPO Assist	3s
Accuracy	
Automatic Position ³	2CM
Speed ⁴	0.1m/s
Operation temperature ⁵	-40°C~+85 °C

Electrical data

Power supply	2.7V~4.2V
Backup power	2.7V~4.2V
Power consumption ^{2, 6}	
Acquisition	10mA
Tracking	10mA
Backup	1uA
Antenna type	Active and passive
Antenna power	External or internal VCC_RF